



## PIZZA BOX SOLAR OVEN DESIGN CONTEST

**Contest Purpose:** To help youth understand and practice the Three **R's**; **Reduce**, **Reuse** and **Recycle**. Contestants should construct a solar oven at home by reusing one or two pizza boxes. On the day of the event, the pre-constructed ovens will be used to harness renewable pollution free energy to melt an ice cube. All registered contestants who bring their ovens to the contest will receive a reward for their participation. The two contestants who design ovens that melt ice cubes in the shortest time will receive \$25 gift certificates to Ledo Pizza.

**Date:** Thursday, April 24<sup>th</sup>, 2008  
Solar ovens can work on cold, partially cloudy days. However, if the weather is so uncooperative as to require cancellation of the contest, rewards for participation will be provided to all registered contestants who bring their entries. Two contestants will be selected, at random, to receive the \$25 gift certificates.

**Time:** 11:00 a.m. – 12:00 p.m. Ovens may be dropped off in the contest area from 8:00 -10:00 AM on the day of the contest. Please write your name on the oven.

**Location:** Building 1 Lawn, NIH Campus  
An area near the lawn will be roped off and ovens will be placed on asphalt.

**Materials:** Solar ovens are easy and fun to make from pizza boxes, recycled aluminum foil and other common materials. A couple websites with information about how to build solar ovens are: <http://www.solarnow.org/pizzabx.htm> and <http://pbskids.org/zoom/activities/sci/solarcookers.html>.

**Contest Rules:** To keep the contest educational, fair, inexpensive, safe and simple, the following rules have been adopted.

1. Contestants must be between 8 and 15 years of age. Contestants should review these rules with an adult before beginning construction of the solar oven.
2. Contestants must register for the contest at <http://takeyourchildtowork.nih.gov/app/SchedEvents.aspx> by Thursday, April 17<sup>th</sup>. Space is limited to 15 contestants, so register early.
3. So that there is room for each contestant's oven, an oven may be no larger than 4 feet wide, 3 feet tall, and 4 feet deep.
4. Since the purpose of the contest is to practice the Three **R's**, use of new boxes or cardboard is discouraged.
5. To avoid safety hazards, please do not use glass or brittle plastic. Please do not use Fresnel lenses or other non-foil methods of concentrating solar energy.
6. Each oven should be designed to hold an ice cube (a shallow dish or small empty metal can in the oven would work). Judges should be able to view the ice cube from the outside of the oven when the oven is cooking.
7. Contestants should return to the contest area by 11:00 a.m. to set up their ovens.
8. At 11:30 a.m., judges will place ice cubes in each oven's ice cube holder.
9. The first two ovens to completely melt their ice cubes will be the winners.
10. Earth Day at NIH is a zero waste event; all entries are to be taken home afterwards.
11. Good Luck!!!